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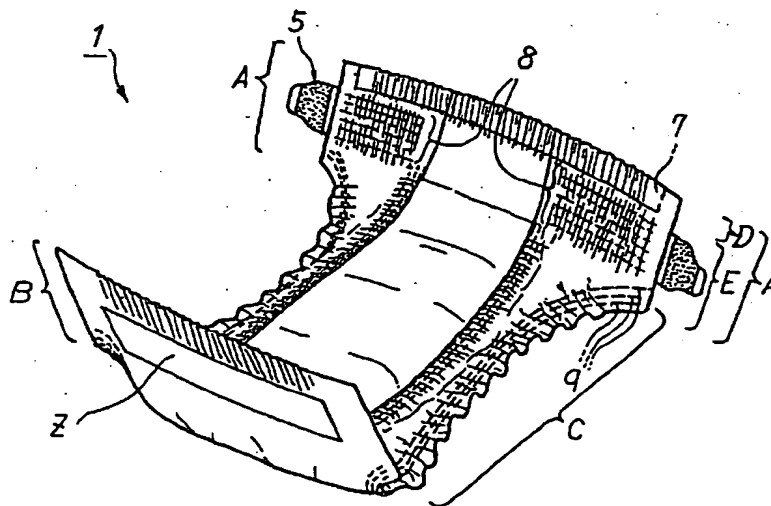
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(54) Disposable diaper

(57) The disposable diaper of the present invention has a substantially elongate configuration and comprises a main body having a liquid-permeable topsheet, a liquid-impermeable backsheet, and a liquid-retentive absorbent member interposed between the topsheet and the backsheet and a pair of fastening tapes provided on each side edge of the main body, the waist opening portion and the under-waist portion in the portion having the fastening tapes being provided with a waist elastic member and a plurality of under-waist elastic

members, respectively, in the width direction of the diaper, and both longer side portions of the diaper being provided with a pair of leg elastic members, wherein the under-waist elastic members are fixedly disposed in at least areas extending outwardly from each longer side of the absorbent member in their stretched state so as to manifest elastic contractibility but are not disposed in at least the middle of the area where the absorbent member exists, and the under-waist portion has a greater extension stress than the waist opening portion in the width direction of the diaper.

Fig.1





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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
E	EP 1 184 012 A (KAO CORP) 6 March 2002 (2002-03-06) * page 4, line 4 - page 4, line 38 * * page 5, line 41 - page 5, line 49 * * page 6, line 34 - page 6, line 51; figures 1,2; example 4; table 1 * ---	1,3,4	A61F13/49 A61F13/15
X	WO 00 76444 A (ZUIKO CORPORATION) 21 December 2000 (2000-12-21) & EP 1 188 427 A 20 March 2002 (2002-03-20) * column 3, line 50 - column 4, line 49 * * column 8, line 37 - column 8, line 51; claims 1,2; figures 1-3 * ---	1,3,4	
X	EP 0 487 921 A (KAO CORP) 3 June 1992 (1992-06-03) * page 5, line 50 - page 6, line 19; figures 5,6; example 2 * ---	1,3	
L	EP 1 197 196 A (UNI CHARM CORP) 17 April 2002 (2002-04-17) * column 5, line 9 - column 5, line 28 * * column 7, line 33 - column 8, line 34; figures 5-8 * ---	1-4	TECHNICAL FIELDS SEARCHED (Int.Cl.7) A61F
P,A	EP 1 157 681 A (UNI CHARM CORP) 28 November 2001 (2001-11-28) * column 5, line 30 - column 6, line 43; figures 4,5 * -----	1-4	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 2 April 2003	Examiner Demay, S
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 1109

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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02-04-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1184012	A	06-03-2002	JP 2002065734 A	05-03-2002
			CN 1341408 A	27-03-2002
			EP 1184012 A1	06-03-2002
			US 2002049421 A1	25-04-2002
WO 0076444	A	21-12-2000	JP 2001000478 A	09-01-2001
			CN 1348349 T	08-05-2002
			EP 1188427 A1	20-03-2002
			WO 0076444 A1	21-12-2000
EP 0487921	A	03-06-1992	JP 4166150 A	12-06-1992
			JP 7044945 B	17-05-1995
			JP 2902502 B2	07-06-1999
			JP 4364845 A	17-12-1992
			DE 69113213 D1	26-10-1995
			EP 0487921 A2	03-06-1992
			HK 1001668 A1	03-07-1998
			US 5449353 A	12-09-1995
			US 5415649 A	16-05-1995
EP 1197196	A	17-04-2002	JP 2002119537 A	23-04-2002
			AU 7939701 A	18-04-2002
			BR 0105639 A	20-08-2002
			CN 1358490 A	17-07-2002
			EP 1197196 A1	17-04-2002
			US 2002045872 A1	18-04-2002
EP 1157681	A	28-11-2001	JP 2001333932 A	04-12-2001
			AU 750441 B2	18-07-2002
			AU 4611901 A	29-11-2001
			CA 2347520 A1	26-11-2001
			CN 1325669 A	12-12-2001
			EP 1157681 A2	28-11-2001
			US 2001049516 A1	06-12-2001

EPC FORM P0153

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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